

CLAIMS

What is claimed is:

- 5 1. A device for binding molecules, molecular groups, molecular parts
and/or cells contained in a liquid to target structures **wherein** said
device comprises at least one object holder with at least one target
structure firmly held therein which contacts at least one duct made of
at least one material, said duct including a liquid inlet at a first aperture
10 thereof, and a liquid outlet at a second aperture thereof, as well as at
least one object holder thermostat used for cooling said object holder.
2. The device of claim 1 **wherein** said duct is formed by said object
holder and paraffin-like sheet material.
- 15 3. The device as claimed in claim 1 **wherein** said liquid is introduced by
means of a plunger mechanism, a pump or under the influence of
gravity.
4. The device as claimed in claim 1 **wherein** said liquid can be
20 discharged by means of a pump or under the influence of gravity.
5. The device as claimed in claim 1 **wherein** the temperature of said
object holder can be cooled down to 2-10°C by means of the object
25 holder thermostat.
6. The device as claimed in claim 1 **wherein** the object holder thermostat
includes a first Peltier element.
- 30 7. The device as claimed in claim 1 **wherein** the discharged liquid will be
collected in a vessel.

8. The device as claimed in claim 7 **wherein** the temperature of said vessel will be cooled down by means of a vessel thermostat.
- 5 9. The device as claimed in claim 8 **wherein** a vessel thermostat allows the temperature of said vessel to be cooled down to 2-10°C.
10. The device as claimed in claim 7 **wherein** said vessel thermostat includes a second Peltier element.
- 10 11. The device as claimed in claim 8 **wherein** said vessel thermostat includes a second Peltier element.
12. The device as claimed in claim 1 **wherein** said liquid contains lymphocytes.
- 15 13. The device as claimed in claim 1 **wherein** said target structure is a tissue section or a membrane coated with molecules or molecular combinations.
- 20 14. A method for binding molecules, molecular groups, molecular parts and/or cells contained in a liquid to target structures **wherein** said method comprises the following steps:
- 25 a. passing liquid through a duct and over an object holder with a target structure firmly held therein,
- b. removing any non-binding matter via a second aperture of said duct and collecting said matter in a vessel,
- c. cooling said object holder by means of an object holder thermostat, and
- 30 d. fixing the molecules, molecular groups, molecular parts and/or cells binding to said object holder.

15. Use of the device as claimed in one of the preceding claims in an automated method for determining molecular classes, molecular groups, molecular parts in a solid or liquid object according to U.S. application serial number 09/353,942.